



# Type Test Report

Motor tested in accordance with IEC60034-2-1 & AS/NZS1359.102.3. Efficiency as per IEC60034-2-1  
(PLL determined from residual loss)

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Type: TAI 712-6

TR Number: 2011070301

Test Lab: Techtop factory

## Nameplate:

Type:	TAI 712-6	Duty:	S1	IP:	55	
Serial No:	201103096011	Ins.Cl:	F	KG:	6	
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]
230/400	50	0.25	1.46/0.84	0.72	850	59.7
Brg.DE:	6202 RZ	Brg.NDE:	6202 RZ			

## No Load Test:

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
No load	360	0.57	58	50	1000	0.0	0	0.16	0.0
<b>No load</b>	<b>400</b>	<b>0.68</b>	<b>80</b>	<b>50</b>	<b>1000</b>	<b>0.0</b>	<b>0</b>	<b>0.17</b>	<b>0.0</b>
No load	440	0.82	112	50	1000	0.0	0	0.18	0.0

## Load Test:

Load [p.u]	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
0.25	400	0.66	151	50	970	0.615	63	0.33	41.4
0.5	400	0.69	223	50	951	1.255	125	0.47	56.0
0.75	400	0.73	306	50	913	1.956	187	0.61	61.2
<b>1</b>	<b>400</b>	<b>0.84</b>	<b>419</b>	<b>50</b>	<b>855</b>	<b>2.793</b>	<b>250</b>	<b>0.72</b>	<b>59.7</b>
1.25	400	1.07	596	50	777	3.836	312	0.80	52.4
1.5	400	1.49	905	50	679	5.277	375	0.88	41.4

## Full Load At 380V & 420V

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
380V	380	0.87	440	50	815	2.928	250	0.77	56.8
420V	420	0.84	415	50	878	2.721	250	0.68	60.2

## Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	2.457	1303	5.458	0.77

## Temperature Rise:

Amb. Temperature:	26.3	[°C]	Winding temperature rise:	50.1	[K]
Cold Resistance:	76.7	[Ω]	Frame:	28.1	[°C]
Hot Resistance:	91.5	[Ω]	Bearing:	30.2	[°C]

## Torque And Current:

Locked Rotor Tor./Rated Tor.:	1.95	Breakdown Torque/Rated Torque:	2.05
Locked Rotor Cur./Rated Cur.:	2.93	Pullup Torque/Rated Torque:	1.87

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 03/Jul/11
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